

CLAIM AMENDMENTS:

1. (currently amended) A radially expandable multilayer tubular structure intended to be used as a stent, comprising at least inner and outer layers, each of the layers being formed from a metal or metal alloy, and each having opposite inner and outer surfaces, the outer surface of the inner layer being secured in substantially face-to-face engagement with the inner surface of the outer layer to define an integral metal-to-metal bond therebetween, recesses being formed in one of the inner and outer surfaces of the inner layer and extending partly towards the other of the inner and outer surfaces of the inner layer, the outer layer being formed with an array of radial perforations extending entirely therethrough from the inner surface to the outer surface thereof, the recesses being filled with a medicinal product.

2. (canceled).

3. (previously presented) The structure as claimed in claim 1, wherein said recesses are located on the inner surface of said inner layer.

4. (previously presented) The structure as claimed in claim 1, wherein said recesses are located on the outer surface of the inner layer.

5. (canceled).

6. (previously presented) The structure as claimed in claim 1, wherein the material used for said layers is Ta or 316L steel or Elgiloy (40%), or a Pt/Ir alloy, or any other biocompatible metal or alloy.

7. (previously presented) The structure as claimed in claim 1, wherein the structure comprises at least three layers.

8. (canceled).

9. (previously presented) A process for manufacturing radially expandable multi-layer tubular structure intended to be use as a stent, the process comprising the following steps:

providing first and second metal sheets, each of the sheets having opposite first and second surfaces;

forming recesses on one of the surfaces of first sheet;

treating one of the surfaces of each sheet by sandblasting or with a plasma;

superposing the sheets with their treated faces against each other and hot vacuum rolling to bond the sheets in face-to-face relationship;

machining of the combination of the two bonded sheets in order to obtain meshing specific to the stents;

forming of a tube by rolling up the sheets and welding along the generatrix forming the seam; and

cutting of the tube to a desired length in order to obtain stents.

10. (previously presented) The process as claimed in claim 9, further comprising forming perforations through the second sheet before the treatment of one of its surfaces.

11. (previously presented) A process for manufacturing a radially expandable multilayer tubular structure intended to be use as a stent, comprising:

providing a first metal tube and a second metal tube, the outside diameter of the second metal tube being less than the inside diameter of the first, each of the

tubes having opposite inner and outer surfaces, recesses being formed in the outer surface of the second tube;

treating the outer surface of the second tube by sandblasting or with a plasma;

sliding the second tube into the first tube to form a tube assembly;

subjecting the tube assembly to hot drawing under vacuum to form a single tube;

machining the single tube to form a structure having a meshing specific to the stents; and

cutting the machined tube to a desired length in order to obtain stents.

12. (previously presented) The process as claimed in claim 11, further comprising forming perforations through the first tube before the second tube is slid into the first tube.

13. (previously presented) The process as claimed in claim 9, further comprising depositing a thin layer of a metal with a maximum thickness of 1 micron to the outer surface of the second tube after the outer surface of the second tube has been treated by sandblasting or with plasma for improving intimate bonding of the tubes and to prevent the two tubes from separating.

14. (previously presented) The process as claimed in claim 9, wherein the recesses are filled with a medicinal product.

15. (previously presented) The process as claimed in claim 9, wherein the recesses form periodic patterns, the period of which is from 50 to 60 microns.

16. (previously presented) The process as claimed in claim 10, wherein the said perforations form periodic patterns, the period of which is from 50 or 60 microns.

17. (canceled).

18. (canceled).